

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

I. Amendments to the Specification

The specification has been revised to remain consistent with the terminology recited in the amended claims. No new matter has been added.

II. Amendments to the Claims

Claims 2-15, 19-39 and 43 have been cancelled without prejudice or disclaimer of the subject matter contained.

Further, independent claims 1, 16, 18, 40 and 45 have been amended to clarify features of the invention recited therein and to further distinguish the present invention from the references relied upon in the rejections discussed below.

In addition, dependent claim 42 has been amended to remain consistent with amended independent claim 40.

III. 35 U.S.C. § 103(a) Rejections

Claims 1, 5-24, 28-42, 44 and 42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chung et al. (U.S. 4,779,266) in view of various combinations of Balachandran (U.S. 7,187,715), Forestieri (U.S. 2004/0066856), Gill et al. (U.S. 7,277,647), Chow et al. (U.S. 6,574,022), Betts (U.S. 5,373,388), Miyauchi et al. (U.S. 6,823,141), Aoki

(U.S. 5,315,426), Khoe et al. (U.S. 4,779,266), Myers (U.S. 2003/0026199), and Izadpanah (U.S. 6,791,734). These rejections are believed clearly inapplicable to amended independent claims 1, 16, 18, 40 and 45 and claims 17, 41 and 42 that depend therefrom for the following reasons.

Independent claim 1 recites an ultra wide band optical transmission system for optically transmitting a data signal via an ultra wide band transmission. Further, claim 1 recites a pulse compressing portion for (i) receiving an optically intensity modulated signal transmitted on an optical transmission path, (ii) one of compressing a pulse width of a short pulse train which is modulation information, and reducing a rising time and/or a falling time of the short pulse train, by using an interaction between a wavelength chirp and a wavelength dispersion, and (iii) outputting a result as an optical signal.

Initially, please note that the above-described 35 U.S.C. § 103(a) rejection acknowledges that Chung (primary reference) fails to disclose or suggest compressing a pulse (e.g., a pulse compressing portion), as now recited in amended independent claim 1. In light of the above this rejection relies on Forestieri for teaching the above-mentioned features which are admittedly lacking from Chung.

However, Forestieri merely teaches an optical band-pass filter that removes noise components in order to improve a detection property of a detector for detecting an optical signal (see Fig. 3).

Thus, in view of the above, it is clear that Forestieri teaches the use of a band-pass filter for removing noise components, but fails to disclose or suggest compressing a pulse width of a short pulse train which is modulation information by using an interaction between a wavelength chirp and a wavelength dispersion, as required by claim 1.

Therefore, because of the above-mentioned distinctions it is believed clear that claim 1 and claim 42 that depends therefrom would not have been obvious or result from any combination of Chung, Balachandran, Forestieri, Gill, Chow, Betts, Miyauchi, Aoki, Khoe, Myers, and Izadpanah.

Please note that one of the results of the structure required by claim 1 is that a pulse width of a signal transmitted using optical signal processing is narrowed, causing a frequency spectrum of the pulse train to be enlarged in an efficient manner. Specifically, the present invention is advantageously capable of transmitting a high-quality wideband wireless signal having increased interference robustness by reducing a bandwidth condition necessary for a transmitting apparatus and a transmission path. In light of the discussion above, it is clear that Forestieri does not provide the above-mentioned results, because Forestieri merely teaches filtering out specific frequency components of an optical signal.

Furthermore, there is no disclosure or suggestion in Chung, Balachandran, Forestieri, Gill, Chow, Betts, Miyauchi, Aoki, Khoe, Myers, and/or Izadpanah or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Chung, Balachandran, Forestieri, Gill, Chow, Betts, Miyauchi, Aoki, Khoe, Myers, and/or Izadpanah to obtain the invention of independent claim . Accordingly, it is respectfully submitted that independent claim 1 and claim 42 that depends therefrom are clearly allowable over the prior art of record.

Amended independent claims 16, 18, 40 and 45 are directed to optical transmission systems and a band receiver apparatus, and each recite features that correspond to the above-mentioned distinguishing features of independent claim 1. Thus, for the same reasons discussed

above, it is respectfully submitted that independent claims 16, 18, 40 and 45 and claims 17 and 41 that depend therefrom are allowable over the prior art of record.

IV. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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